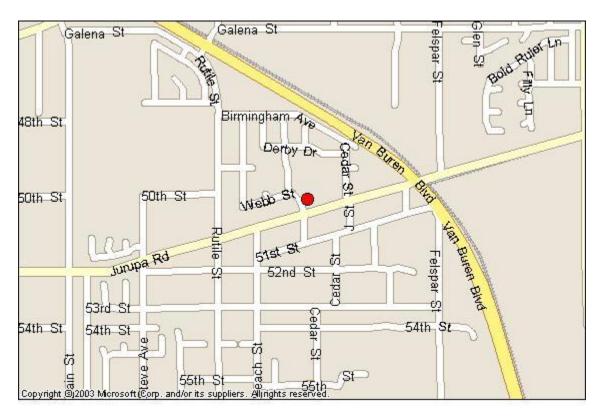
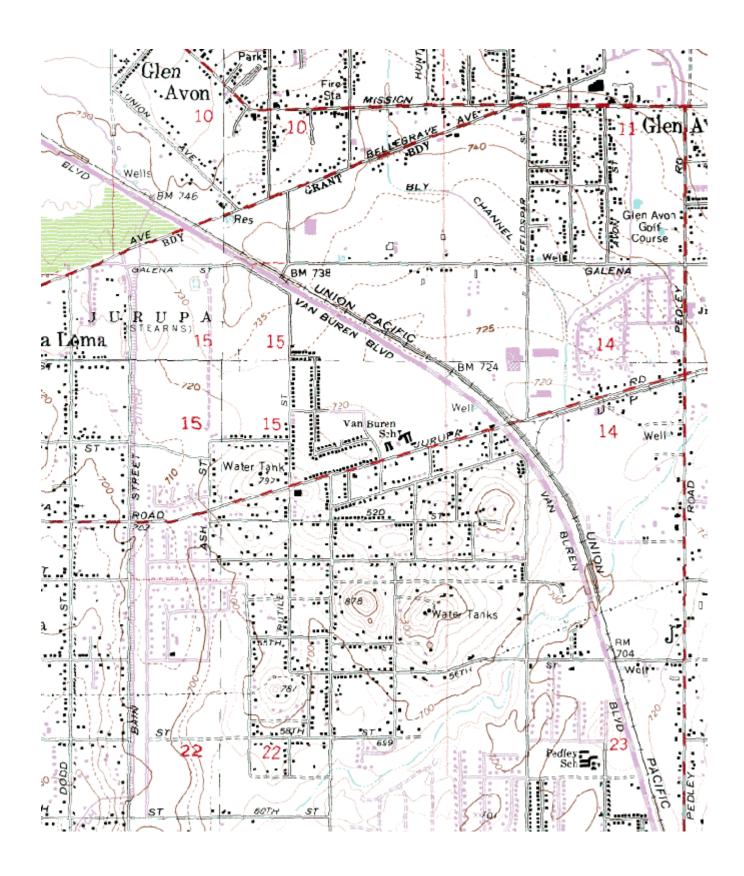
Quality Assurance Site Survey Report for Mira Loma (Van Buren)

Last updated: May, 2017



| AQS ID | ARB Number | Site Start Date | Reporting Agency and Agency Code |
|-----------|------------|-----------------|----------------------------------|
| 060658005 | 33165 | 11/2005 | South Coast AQMD (061) |

| Site Address | County | Air Basin | Latitude | Longitude | Elevation |
|---|-----------|-------------|--------------|---------------|-----------|
| 5130 Poinsettia Pl Riverside, CA 92509 | Riverside | South Coast | 33° 59' 46"N | 117° 29' 32"W | 220 |



Detailed Site Information

| Local site name | | Mira Loi | Mira Loma (Van Buren) | | | | |
|-----------------------------------|--------------|-------------------------------------|---|--|--------------------------|--|--|
| AQS ID | | 060658005 | | | | | |
| GPS coordinates (decimal degrees) | | 1 | Latitude: 33° 59' 46" Longitude: 117° 29' 32" | | | | |
| Street Address | | 5130 Poinsettia Place, Riverside CA | | | | | |
| County | | Riverside | | | | | |
| Distance to roadways (1 | neters) | 14 – 15 | | | | | |
| Traffic count (AADT, y | | < 1,000 / | 2012 | | | | |
| Groundcover | , | Gravel | | | | | |
| (e.g. asphalt, dirt, sand) | | | | | | | |
| Representative statistica | | 40140-R | iverside, San Bernardino- | -Ontario, CA MSA | | | |
| (i.e. MSA, CBSA, other | r) | | | | | | |
| Pollutant, POC | Carbon Mon | oxide, 1 | Nitrogen Dioxide, 1 | Ozone, 1 | PM10, 1 | | |
| Primary / QA | N/A | | N/A | N/A | Primary | | |
| Collocated / Other | | | | | | | |
| Parameter code | 42101 | | 42602 | 44201 | See Table 26 | | |
| Basic monitoring | NAAQS | | NAAQS | NAAQS | NAAQS | | |
| objective(s) | | | | | | | |
| Site type(s) | Population E | Exposure | Population Exposure | Population Exposure | Highest Concentration | | |
| Monitor (type) | SLAMS | | SLAMS | SLAMS | SLAMS | | |
| Network Affiliation | N/A | | N/A | N/A | N/A | | |
| Instrument | Horiba APM | IA 360 | Thermo 42i | API/Teledyne 400E | GMW 1200 SSI | | |
| manufacturer and | | | 111011110 121 | The process of the control of the co | 31111 1200 221 | | |
| model | | | | | | | |
| Method code | 106 | | 074 | 087 | 063, 102 | | |
| FRM/FEM/ARM/ | FRM | | FRM | FEM | FRM | | |
| other | | | | | | | |
| Collecting Agency | SCAQMD | | SCAQMD | SCAQMD | SCAQMD | | |
| Analytical Lab | N/A | | N/A | N/A | SCAQMD | | |
| (i.e.weigh lab, toxics | | | | | | | |
| lab, other) | | | | | | | |
| Reporting Agency | SCAQMD | | SCAQMD | SCAQMD | SCAQMD | | |
| Spatial scale (e.g. | Neighborhood | | Neighborhood | Neighborhood | Neighborhood | | |
| micro, neighborhood) | | | | | | | |
| Monitoring start date | 11/09/2005 | | 11/09/2005 | 11/09/2005 | 11/09/2005 | | |
| (MM/DD/YYYY) | | | 1.1 | 1.1 | 1.6 | | |
| Current sampling | 1:1 | | 1:1 | 1:1 | 1:6 | | |
| frequency (e.g.1:3, | | | | | | | |
| continuous) | N/A | | N/A | N/A | 1,6 | | |
| Calculated sampling frequency | IN/A | | 1 N /A | IN/A | 1:6 | | |
| (e.g. 1:3/1:1) | | | | | | | |
| Sampling season | 01/01-12/31 | | 01/01-12/31 | 01/01-12/31 | 01/01-12/31 | | |
| (MM/DD-MM/DD) | 01/01-12/31 | | 01/01-12/31 | 01/01-12/31 | 01/01-12/31 | | |
| Probe height (meters) | 4.4 | | 4.4 | 4.4 | 2.6 | | |
| Distance from | 2.0 | | 2.0 | 2.0 | 2.0 | | |
| supporting structure | | | | | | | |
| (meters) | | | | | | | |
| Distance from | N/A | | N/A | N/A | N/A | | |
| obstructions on roof | | | | | | | |
| (meters) | | | | | | | |
| | | | | | | | |

| Distance from | N/A | N/A | N/A | N/A |
|------------------------|------------|------------|------------|-------------|
| | IN/A | IN/A | IN/A | N/A |
| obstructions not on | | | | |
| roof (meters) | | | | |
| Distance from trees | 36 | 36 | 36 | 36 |
| (meters) | | | | |
| Distance to furnace or | N/A | N/A | N/A | N/A |
| incinerator flue | | | | |
| (meters) | | | | |
| Distance between | N/A | N/A | N/A | 2 |
| collocated monitors | IV/A | IV/A | IV/A | |
| | | | | |
| (meters) | 2600 | 2600 | 2600 | 2600 |
| Unrestricted airflow | 360° | 360° | 360° | 360° |
| (degrees) | | | | |
| Probe material for | Teflon | Teflon | Teflon | N/A |
| reactive gases | | | | |
| (e.g. Pyrex, stainless | | | | |
| steel, Teflon) | | | | |
| Residence time for | 5.6 | 6.1 | 6.4 | N/A |
| reactive gases | | | | |
| (seconds) | | | | |
| Will there be changes | No | No | No | No |
| | NO | NO | NO | NO |
| within the next 18 | | | | |
| months? (Y/N) | 27/ | 27/1 | 27/ | |
| Is it suitable for | N/A | N/A | N/A | N/A |
| comparison against | | | | |
| the annual PM2.5? | | | | |
| (Y/N) | | | | |
| Frequency of flow | N/A | N/A | N/A | Monthly |
| rate verification for | | | | |
| manual PM samplers | | | | |
| Frequency of flow | N/A | N/A | N/A | N/A |
| rate verification for | IN/A | 11/1 | IV/A | IV/A |
| automated PM | | | | |
| | | | | |
| analyzers | NY 1.1 | 27.1.1 | N 1 2 | 27/4 |
| Frequency of one- | Nightly | Nightly | Nightly | N/A |
| point QC check for | | | | |
| gaseous instruments | | | | |
| Last Annual | 11/02/2016 | 11/02/2016 | 11/02/2016 | N/A |
| Performance | | | | |
| Evaluation for | | | | |
| gaseous parameters | | | | |
| (MM/DD/YYYY) | | | | |
| Last two semi-annual | N/A | N/A | N/A | 05/04/2016, |
| flow rate audits for | 11/71 | 11/1 | 11/1 | 11/04/2016 |
| | | | | 11/04/2010 |
| PM monitors | | | | |
| (MM/DD/YYYY, | | | | |
| MM/DD/YYYY) | | | | |
| MM/DD/YYYY) | | | | |

| Pollutant, POC | Continuous PM2.5, 3 | 24 Hour PM2.5, 1 | Continuous PM10, 3 | 24 Hour PM2.5, 2 |
|--------------------|---------------------|------------------|--------------------|------------------|
| Primary / QA | Other | Primary | Other | QA Collocated |
| Collocated / Other | | | | |
| Parameter code | 88101 | See Table 26 | 81102 | See Table 26 |
| Basic monitoring | NAAQS | NAAQS | NAAQS | NAAQS |
| objective(s) | | | | |

| Site type(s) | Highest | Highest | Highest | Highest |
|------------------------|----------------------|--------------------|---------------------|------------------------|
| | Concentration | Concentration | Concentration | Concentration |
| Monitor (type) | SLAMS | SLAMS | SLAMS | SLAMS/QA Collocated |
| Network Affiliation | N/A | N/A | N/A | N/A |
| Instrument | Met One BAM 1020 | Thermo 2025i PM2.5 | Met One BAM 1020 | Thermo 2025i PM2.5 |
| manufacturer and | Trice one Brave 1020 | A Sampler | Met one Britis 1020 | B Sampler |
| model | | 11 Sampler | | Bumpler |
| Method code | 170 | 118, 145 | 122 | 118, 145 |
| FRM/FEM/ARM/ | FEM | FRM | FEM | FRM |
| other | I LEIVI | TIXIVI | LEMI | TIXIVI |
| | CCAOMD | SCAOMD | SCAOMD | CCAOMD |
| Collecting Agency | SCAQMD | SCAOMD | SCAQMD | SCAQMD |
| Analytical Lab | N/A | SCAQMD | N/A | SCAQMD |
| (i.e.weigh lab, toxics | | | | |
| lab, other) | 221010 | 221015 | 0.01 C) (D) | 221015 |
| Reporting Agency | SCAQMD | SCAQMD | SCAQMD | SCAQMD |
| Spatial scale (e.g. | Neighborhood | Neighborhood | Neighborhood | Neighborhood |
| micro, neighborhood) | | | | |
| Monitoring start date | 11/09/2005 | 12/07/2005 | 03/08/2010 | 03/01/2012 |
| (MM/DD/YYYY) | | | | |
| Current sampling | 1:1 | 1:1 | 1:1 | 1:6 |
| frequency (e.g.1:3, | | | | |
| continuous) | | | | |
| Calculated sampling | N/A | 1:3 | N/A | 1:6 |
| frequency | | | | |
| (e.g. 1:3/1:1) | | | | |
| Sampling season | 01/01-12/31 | 01/01-12/31 | 01/01-12/31 | 01/01-12/31 |
| (MM/DD-MM/DD) | 01/01 12/01 | 01/01 12/01 | 01/01 12/01 | 01/01 12/01 |
| Probe height (meters) | 4.5 | 2.9 | 4.5 | 2.9 |
| Distance from | 2.0 | 2.0 | 2.0 | 2.0 |
| supporting structure | 2.0 | 2.0 | 2.0 | 2.0 |
| (meters) | | | | |
| Distance from | N/A | N/A | N/A | N/A |
| obstructions on roof | IN/A | IV/A | IV/A | IV/A |
| | | | | |
| (meters) | NT/A | NT/A | NT/A | NT/A |
| Distance from | N/A | N/A | N/A | N/A |
| obstructions not on | | | | |
| roof (meters) | 27/1 | 77/ | 27/1 | 27/1 |
| Distance from trees | N/A | N/A | N/A | N/A |
| (meters) | | | | |
| Distance to furnace or | N/A | N/A | N/A | N/A |
| incinerator flue | | | | |
| (meters) | | | | |
| Distance between | 2 | 2 | 2 | 2 |
| collocated monitors | | | | |
| (meters) | | | | |
| Unrestricted airflow | 360° | 360° | 360° | 360° |
| (degrees) | | | | |
| Probe material for | N/A | N/A | N/A | |
| reactive gases | | | | |
| (e.g. Pyrex, stainless | | | | |
| steel, Teflon) | | | | |
| Residence time for | N/A | N/A | N/A | N/A |
| reactive gases | | | | |
| | Ī | 1 | İ | 1 |

| Will there be changes within the next 18 months? (Y/N) | No | No | No | No |
|--|---|---------------------------|---------------------------|---------------------------|
| Is it suitable for comparison against the annual PM2.5? (Y/N) | No, unless the manual sampler has missing data. | Yes | No | Yes |
| Frequency of flow rate verification for manual PM samplers | N/A | Bi-Weekly | N/A | Bi-Weekly |
| Frequency of flow rate verification for automated PM analyzers | Monthly | N/A | Monthly | N/A |
| Frequency of one- point QC check for gaseous instruments | N/A | N/A | N/A | N/A |
| Last Annual Performance Evaluation for gaseous parameters (MM/DD/YYYY) | N/A | N/A | N/A | N/A |
| Last two semi-annual flow rate audits for PM monitors (MM/DD/YYYY, MM/DD/YYYY) | 06/19/2016, 12/15/2016 | 05/04/2016, 11/04/2016 | 06/19/2016, 12/15/2016 | 05/04/2016, 11/04/2016 |

| Pollutant, POC | PM10, 2 | PM10, 4 | | |
|------------------------|---------------|---------------|---|---|
| Primary / QA | Primary | QA Collocated | | |
| Collocated / Other | - | | | |
| Parameter code | See Table 26 | See Table 26 | | |
| Basic monitoring | NAAQS | NAAQS | | |
| objective(s) | | | | |
| Site type(s) | Highest | Highest | | |
| | Concentration | Concentration | | |
| Monitor (type) | SLAMS | SLAMS | | |
| Network Affiliation | N/A | N/A | | |
| Instrument | GMW 1200 SSI | GMW 1200 SSI | | |
| manufacturer and | | | | |
| model | | | | |
| Method code | 063, 102 | 063, 102 | | |
| FRM/FEM/ARM/ | FRM | FRM | | |
| other | | | | |
| Collecting Agency | SCAQMD | SCAQMD | | |
| Analytical Lab | SCAQMD | SCAQMD | | |
| (i.e.weigh lab, toxics | | | | |
| lab, other) | | | | |
| Reporting Agency | SCAQMD | SCAQMD | · | |
| Spatial scale (e.g. | Neighborhood | Neighborhood | · | · |
| micro, neighborhood) | | | | |
| Monitoring start date | 11/09/2005 | 07/01/2014 | | |
| (MM/DD/YYYY) | | | | |

| | 1.6 | | | |
|------------------------|-------------|-------------|----------|--|
| Current sampling | 1:6 | 1:6 | | |
| frequency (e.g.1:3) | | | | |
| Calculated sampling | 1:6 | 1:6 | | |
| frequency | | | | |
| (e.g. 1:3/1:1) | | | | |
| Sampling season | 01/01-12/31 | 01/01-12/31 | | |
| (MM/DD-MM/DD) | | | | |
| Probe height (meters) | 2.6 | 2.6 | | |
| Distance from | 2.0 | 2.0 | | |
| supporting structure | | | | |
| (meters) | | | | |
| Distance from | N/A | N/A | | |
| obstructions on roof | 11/11 | 14/11 | | |
| (meters) | | | | |
| Distance from | N/A | N/A | | |
| obstructions not on | IN/A | N/A | | |
| | | | | |
| roof (meters) | 26 | 36 | | |
| Distance from trees | 36 | 36 | | |
| (meters) | 27/4 | 27/4 | | |
| Distance to furnace or | N/A | N/A | | |
| incinerator flue | | | | |
| (meters) | | | | |
| Distance between | 2 | 2 | | |
| collocated monitors | | | | |
| (meters) | | | | |
| Unrestricted airflow | 360° | 360° | | |
| (degrees) | | | | |
| Probe material for | N/A | N/A | | |
| reactive gases | | | | |
| (e.g. Pyrex, stainless | | | | |
| steel, Teflon) | | | | |
| Residence time for | N/A | N/A | | |
| reactive gases | 11/11 | 1771 | | |
| (seconds) | | | | |
| Will there be changes | No | No | | |
| within the next 18 | 110 | 140 | | |
| | | | | |
| months? (Y/N) | NT/A | NT/A | | |
| Is it suitable for | N/A | N/A | | |
| comparison against | | | | |
| the annual PM2.5? | M | M | | |
| Frequency of flow | Monthly | Monthly | | |
| rate verification for | | | | |
| manual PM samplers | N7/A | 27/4 | | |
| Frequency of flow | N/A | N/A | | |
| rate verification for | | | | |
| automated PM | | | | |
| analyzers | | | | |
| Frequency of one- | N/A | N/A | | |
| point QC check for | | | | |
| gaseous instruments | | | | |
| Last Annual | N/A | N/A | <u> </u> | |
| Performance | | | | |
| Evaluation for | | | | |
| gaseous parameters | | | | |
| | 1 | | | |

| Last two semi-annual | 05/19/2015, | 05/19/2015, | |
|----------------------|-------------|-------------|--|
| flow rate audits for | 11/13/2015 | 11/13/2015 | |
| PM monitors | | | |

Mira Loma (Van Buren) Site Photos



Looking North from the probe.



Looking East from the probe.

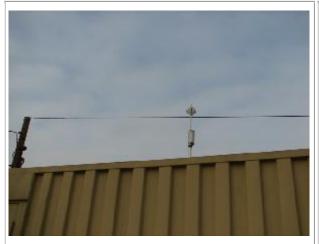


Looking South from the probe.

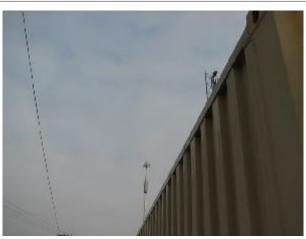


Looking West from the probe.

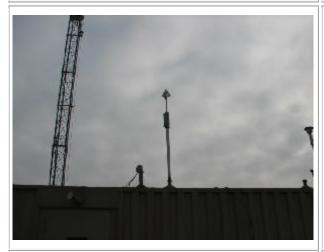
Mira Loma (Van Buren) Site Photos (Cont.)



Looking at the probe from the North.



Looking at the probe from the East.



Looking at the probe from the South.



Looking at the probe from the West.